Steel at the Crossroads: One Year Later

A Progress Report on the American Steel Industry

BEST AVAILABLE COPY

ON THE COVER:

Molten steel pouring from a ladle into a tundish, which regulates the flow of the liquid metal into the molds of a continuous slab caster. Continuous casting substantially increases steelmaking productivity and energy efficiency by eliminating the older ingot casting-reheating-primary rolling steps in the production of semi-finished steel. In the past three years, domestic output of continuously cast steel has increased 62 percent. Today, about one-fifth of the nation's semi-finished steel is continuously cast. By the end of this decade, domestic steelmakers hope to increase their use of continuous casters by 125 percent, so that about 45 percent of the nation's semi-finished steel will be continuously cast.

Steel at the Crossroads: One Year Later

A Progress Report on the American Steel Industry

June, 1981

American Iron and Steel Institute
1000 16th Street, N.W.
Washington, D.C. 20036

BEST AVAILABLE COPY

America Needs a Strong, Healthy Steel Industry

Steel is the Backbone of Industrial America

A strong American steel industry is essential for a strong American economy. Steel is the world's most important single industrial material; no economy can develop and grow without it. It is the key material in the revitalization of American industry. It is vital for national defense, energy production, construction, manufacturing, transportation, mining and agriculture.

If the domestic steel industry continues to shrink to a point where it can provide the U. S. economy with even less of this essential product than it does today, our country, our economy and our national security will be in serious difficulty.

Steel Industry Position Set Forth in Detail

In January, 1980, the American Iron and Steel Institute published *Steel at the Crossroads: The American Steel Industry in the 1980s*, an in-depth analysis of the problems facing the domestic steel industry. The study also recommended public policy changes which would promote the continued existence of a competitive, efficient steel industry.

These recommendations included:

- Legislation to permit accelerated recovery of capital cost for tax purposes, thereby encouraging capital investment, accompanied by public policies which would permit steel companies to achieve competitive rates of return.
- Elimination of government regulation that is not cost-effective and which goes beyond necessary protection of public health and safety.
- Adoption and enforcement of measures ensuring that imported steel, either by excessive volume or unfair pricing, or both, will not disrupt domestic steel markets during the industry's revitalization effort.

The issues addressed in *Steel at the Crossroads* are summarized in this report. The member companies of the American Iron and Steel Institute believe these issues bear reemphasizing, in order to have a current assessment of actions being taken by government and industry.

Progress Has Been Made Toward Achieving Steel's Goals

These policy questions are now being considered by the new Administration and Congress. In the past year, there has been a widespread recognition, both in the Legislative and Executive Branches of the federal government, of the need to move positively on these issues.

At the same time, steel companies themselves have been moving forward on their own to improve efficiency and productivity. Despite the sharp recession which affected the industry in 1980, domestic steelmakers made significant progress in this effort.

This report reviews the steel industry's progress and cites specific examples of improvements which enhance the industry's competitive position and effectiveness. It also reviews those policy changes, now being considered, which the industry believes must be implemented if the revitalization of the steel industry is to continue at a rate sufficient to ensure meaningful improvements in efficiency and competitiveness.

One of the two very large blast furnaces put into operation by domestic steelmakers in the past three years. The more than $200 million furnace incorporates much innovative technology.

Table of Contents

Chapters: Page

I. The Steel Industry Has Made Progress In Its Revitalization Efforts 1

II. Increasing Awareness of Industry Problems 9

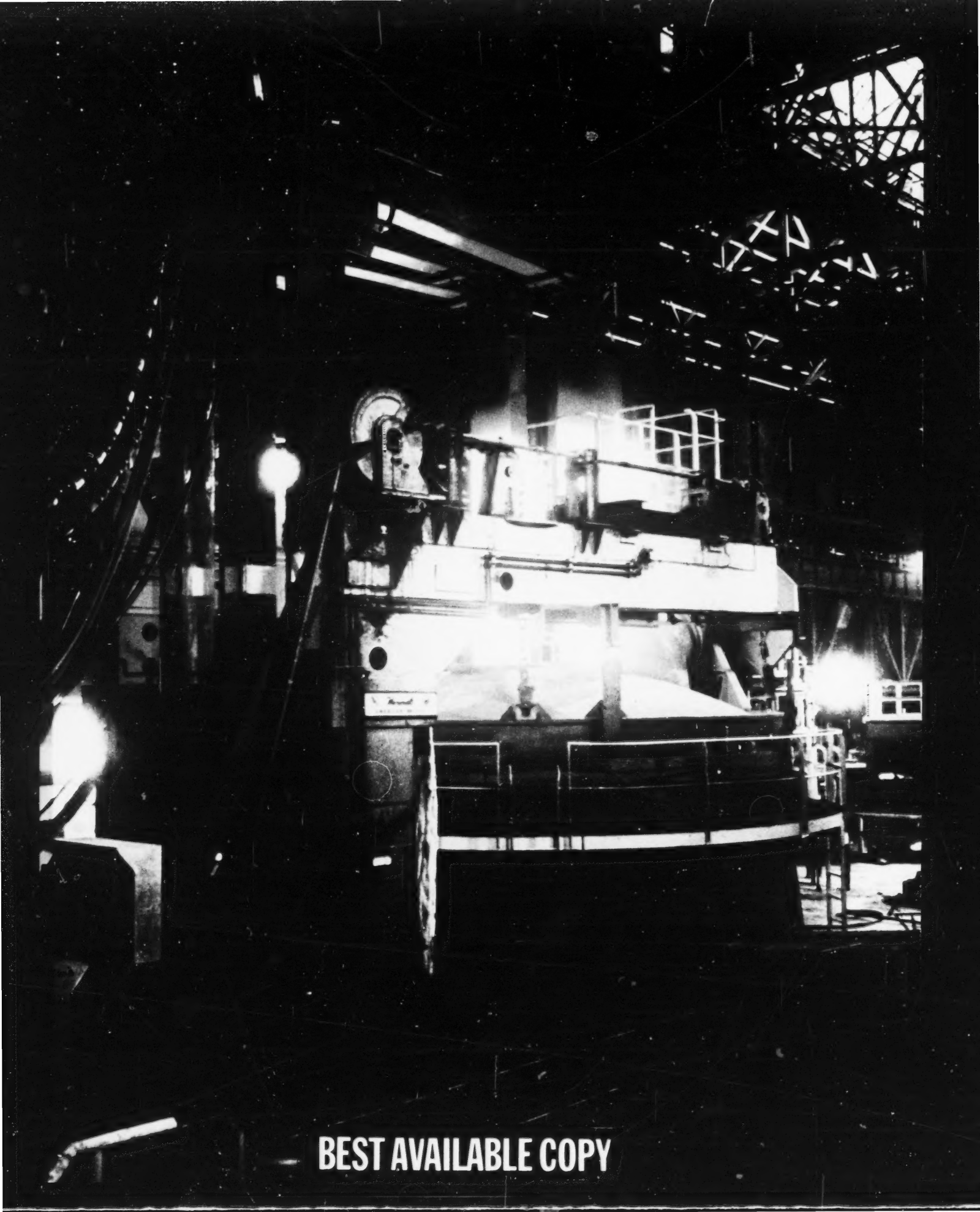
III. Actions Are Still Needed 13

Appendices:

A Summary of *Steel at the Crossroads* and Views of Others About This Study 19

B How Foreign Governments Support and Subsidize Their Steel Industries 24

C American Steel Industry Selected Production and Financial Statistics 28



BEST AVAILABLE COPY

1 The Steel Industry Has Made Progress In Its Revitalization Efforts

A. The Steel Industry Has Made Progress To Improve Productivity And Efficiency

Steel at the Crossroads warned that although the American steel industry is still efficient, it is losing its competitive edge.

Inadequate capital availability has prevented domestic producers from matching the high, sustained investment rates of their most important foreign competitors. In the case of Japan, for instance, massive and continuous investment in modern facilities and equipment is a primary reason for the striking productivity and efficiency of that country's steel industry.

The Japanese identify the latest and best proven production methods available worldwide, adapt them to Japanese conditions, and continuously spend the vast sums needed to put in place the equipment incorporating such technology.

Like their Japanese counterparts, American steelmakers are aware of the best, most modern technology in their field. Unlike the Japanese, however, American steel companies have experienced severe difficulties attracting the investment funds necessary to implement new technology.

Steel at the Crossroads set forth in detail a practicable rapid investment scenario which would ensure that this country will have a technically advanced, economically viable, environmentally responsible steel industry capable of meeting most domestic steel requirements.

The scenario envisioned the investment of an average of $7 billion per year (1978$) during the 1980s so the industry would be in a position to meet the problems which could be posed by a projected increase in world-wide steel demand during the next decade.

A modern electric steelmaking furnace. These furnaces produce more than one-quarter of the nation's steel.

B. Potential Benefits in The 1980s

Among the potential benefits to be derived in the next decade from the rapid modernization scenario are:

- a 20 percent reduction in the average age of steel industry equipment;
- a 20 percent increase in productivity;
- a 15 percent increase in energy efficiency;
- an 8 percent increase in yields;
- a 10 percent savings from more efficient use of other materials and supplies.

C. Key Investment Elements

Facilities necessary to achieve the above benefits include:

- Continuous casters sufficient to raise the percentage of domestic raw steel cast by this process to a level more in line with that of our major foreign competitors and nearly triple the 1978 percentage. Continuous casters, which eliminate the traditional ingot-mold, reheating-ingot, primary rolling sequence, can achieve substantial energy and labor savings as well as yield improvements of as much as 15 percent.
- New coke ovens to replace 50 percent of current capacity.
- Large, modern blast furnaces to replace less efficient units.
- Modern, more efficient basic oxygen and electric furnaces to take the place of open hearth furnaces.

- Upgraded and modernized steel finishing mills and equipment to improve both productivity and product quality.

Despite their financial difficulties, the nation's steel companies have increased their rate of modernization. A dramatic number of new projects have been announced or undertaken during the past few years despite the unfavorable economic environment.

Below are some examples:

Continuous Casters

Plans for at least thirteen new continuous casters, with total capacity approximating ten million tons and costing about $125 per annual ton of capacity, have been announced by steel companies in recent months.

U. S. Steel has undertaken a multi-million dollar improvement program which will increase the capacity of its Gary, Indiana Works caster by 30 percent. In addition, U. S. Steel has announced plans for four additional casters: a 1.3 million tons per year continuous slab caster at a location still under consideration; a 500,000 ton per year tube round caster for its Lorain, Ohio Works; and casters at Fairfield, Alabama and at South Works in Chicago, Illinois.

National Steel Corporation, which has the capability to produce over 50 percent of its slabs by continuous casting, recently began operation of a new continuous caster at Granite City, Illinois.

Armco Inc., plans to build a new six strand bloom caster. Armco also expects to start up a second slab caster at its Butler, Pennsylvania plant by year-end.

Republic Steel Corporation has announced plans to build a continuous caster at its Cleveland, Ohio facilities. Additionally, continuous casters have been announced by CF&I Steel and Bethlehem. Wheeling-Pittsburgh has announced plans to install two continuous casters.

Atlantic Steel Company recently started up a six strand caster, which means that all of that company's semi-finished steel is now continuously cast. Florida Steel Company is completing work on a 400,000 ton per year caster at Jackson, Tennessee. Northwestern Steel and Wire, and John A. Roebling Corp. have also announced plans to construct new casters.

Completion of these plans will increase the share continuously cast to approximately 25 percent. Other announcements are anticipated.

Coke Ovens

Inland Steel and Wheeling-Pittsburgh Steel have each completed and put into operation new coke oven batteries with rated capacities of one million tons per year. National Steel completed a new coke oven battery at Granite City, Illinois with a rated capacity of 240,000 tons per year. Republic Steel completed a new coke oven battery at its Warren, Ohio Works, with a capacity of over 450,000 tons of coke.In addition, Republic will complete a new battery this year with an annual capacity of over 500,000 tons of coke.

Currently under construction are coke oven batteries at U. S. Steel's Clairton, Pennsylvania Works and Bethlehem Steel's Sparrows Point, Maryland facility. National Steel Corporation recently announced plans to install additional coke-making capacity in West Virginia.

Coke oven modernization requires massive expenditures as evidenced by a recent study by Lehigh University and the U. S. Department of Commerce. This study indicated that modernization will require investment of approximately $250 million per million tons of annual coking capacity.

Blast Furnaces

Bethlehem Steel Corporation began production at its 8,000 ton per day "L" furnace at Sparrows Point. The furnace, which cost more than $250 million, features a number of innovations, including a bell-less top. Inland Steel Company shortly thereafter inaugurated its Madeline No. 7 furnace, designed to produce from 7,000 tons to 10,000 tons of iron per day. This furnace, which is entirely computer-controlled, completes a $1 billion modernization program for Inland. These are the two largest blast furnaces operating in the Western Hemisphere.

Republic Steel Corporation has begun operation of its rebuilt and modernized blast furnace at Warren, Ohio. Its capacity was increased from 2,800 tons of iron per day to 3,400 tons per day. At U. S. Steel, following the rebuilding of a blast furnace at Gary, Indiana, output of hot metal from the furnace increased from 6,500 tons to over 8,000 tons per day.

These and other blast furnace modernizations are also designed to significantly improve energy efficiency by achieving coke rates of approximately .45 (tons coke/ton iron) as compared to the 1980 industry average of .57.

Steelmaking Furnaces

Bethlehem Steel Corporation is spending more than $100 million to build two 185-ton electric furnaces that will replace old open hearth facilities at its Johnstown, Pennsylvania plant. Jones & Laughlin is now operating two 350-ton capacity electric furnaces at its Pittsburgh, Pennsylvania plant — they replace old open hearths. Crucible Stainless and Alloy Division of Colt Industries has put into operation two 170-ton capacity ultra-high-power electric furnaces at its Midland, Pennsylvania facilities.

National Steel is converting its 235-ton basic oxygen furnaces at Granite City to a top-blowing and bottom-stirring operation. Republic has installed an electroslag remelting facility at Canton, Ohio. In addition, Armco started a new electric furnace for the production of stainless steel at Baltimore, Maryland.

Finishing Facilities

Armco Inc., has announced it will build a $400 million, 300,000 ton per year capacity seamless tube mill. U. S. Steel has announced a 600,000 ton per year capacity, computerized seamless tube mill to be built at Fairfield, Alabama CF&I has under construction a new seamless tube mill which upon completion will increase oil country tubular goods capacity by 150,000 tons.

U. S. Steel has under construction a new rail mill at its South Chicago Works and Wheeling-Pittsburgh Steel Corporation is building a new rail mill. Bethlehem Steel has announced a program of improvements at its Steelton, Pennsylvania railmaking facilities.

Armco has announced a program to expand and modernize its grain-oriented electrical sheet operations at Zanesville, Ohio and Butler, Pennsylvania. Bethlehem Steel and Inland Steel have each announced plans for continuous-annealing lines for high-strength, light-weight steel for automotive cold rolled sheet. Republic Steel is completing work on an extensive upgrading program for its flat rolled facilities at Gadsden, Alabama. Republic has begun operations of a new steel grinding facility in Canton, and Bethlehem is installing similar facilities at Johnstown. New annealing facilities have been placed in operation by Republic Steel and Jones & Laughlin.

Timken has announced preliminary plans to build a $500 million alloy steel bar and billet plant.

In response to shifts in steel markets, substantial additional capital expenditures for finishing facilities will be required in the 1980s. This is due to changing requirements of consuming industries, including the energy industry, and will accelerate the trend toward higher product quality including light-weight, high-strength steels.

* * *

The above examples are indicative of some of the efforts steel companies are making to modernize and improve their competitive position.

Steel companies, constrained by capital availability, are still spending less for new facilities than needed under the rapid modernization scenario. The rate of modernization needs to be increased substantially. Steel companies can be expected to continue their modernization efforts. However, only with changes in government policies will they be able to accelerate their rate of modernization in the 1980s.

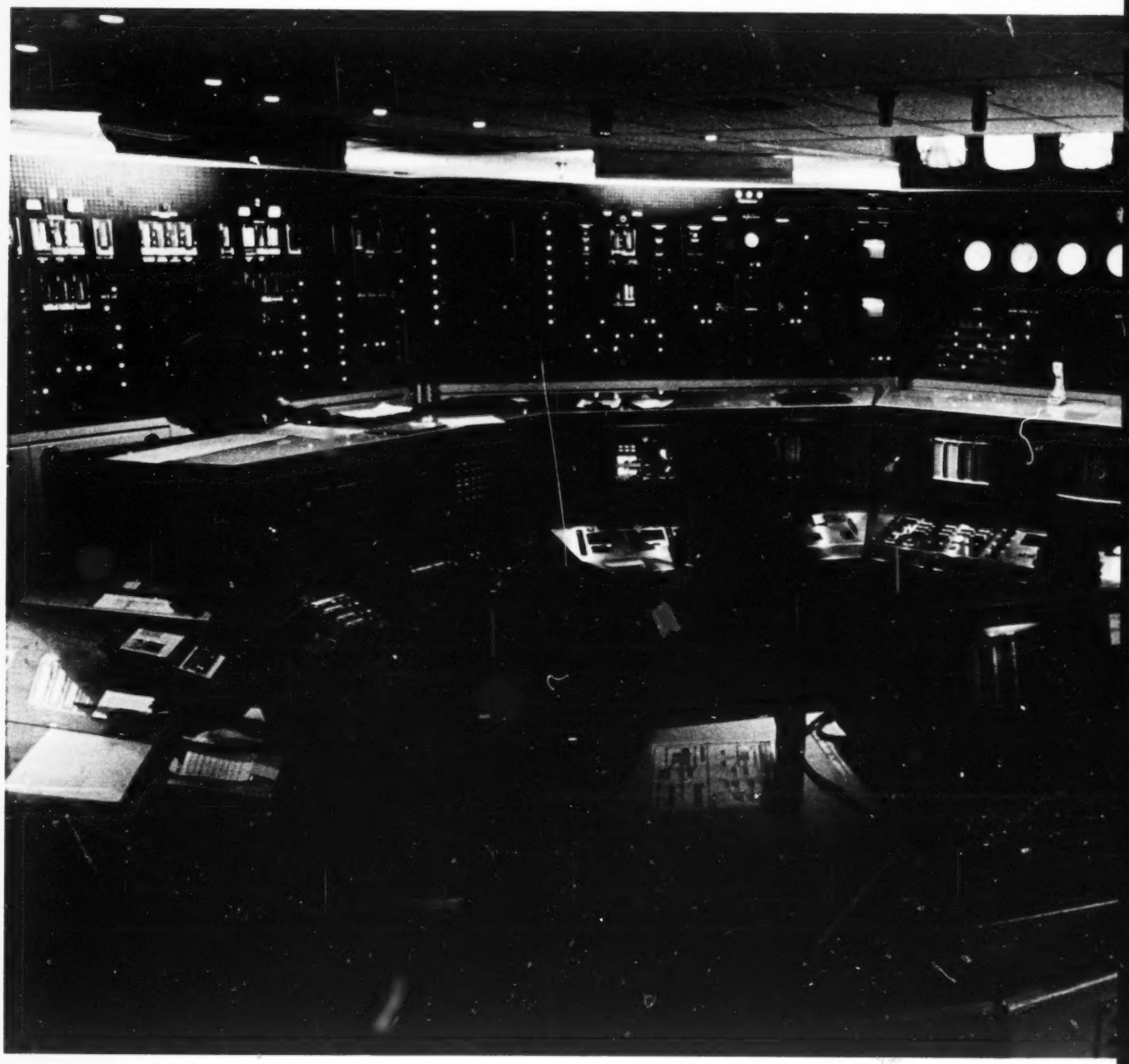
D. Progress in Energy Conservation

Energy conservation in the steel industry falls into two major categories: restriction of usage of critical fuels where coal can be efficiently substituted; and reduction of BTU requirements.

During 1980, the domestic steel industry's energy consumption was 29.58 million BTU's per net ton of shipments, better than the 1980 Department of Energy objective level, and down from 29.98 million BTU's per net ton of shipments in 1979. The decline occurred despite a sharp fall in 1980 steel production, which normally would have caused a sizable increase in per ton energy use. Increased electric furnace melting, increased use of continuous casting, and larger, more efficient blast furnaces were major contributors to these energy savings. Other examples of energy savings improvements include items such as installing waste heat recuperators and modernizing soaking pits.

E. Expanded Technology Efforts

Research and development of new facilities and products is a major cost when undertaken by a single steel company. Therefore, in addition to their own efforts, many American steel companies are purchasing technology from the Japanese and other world steel producers in order to utilize the best available methods.



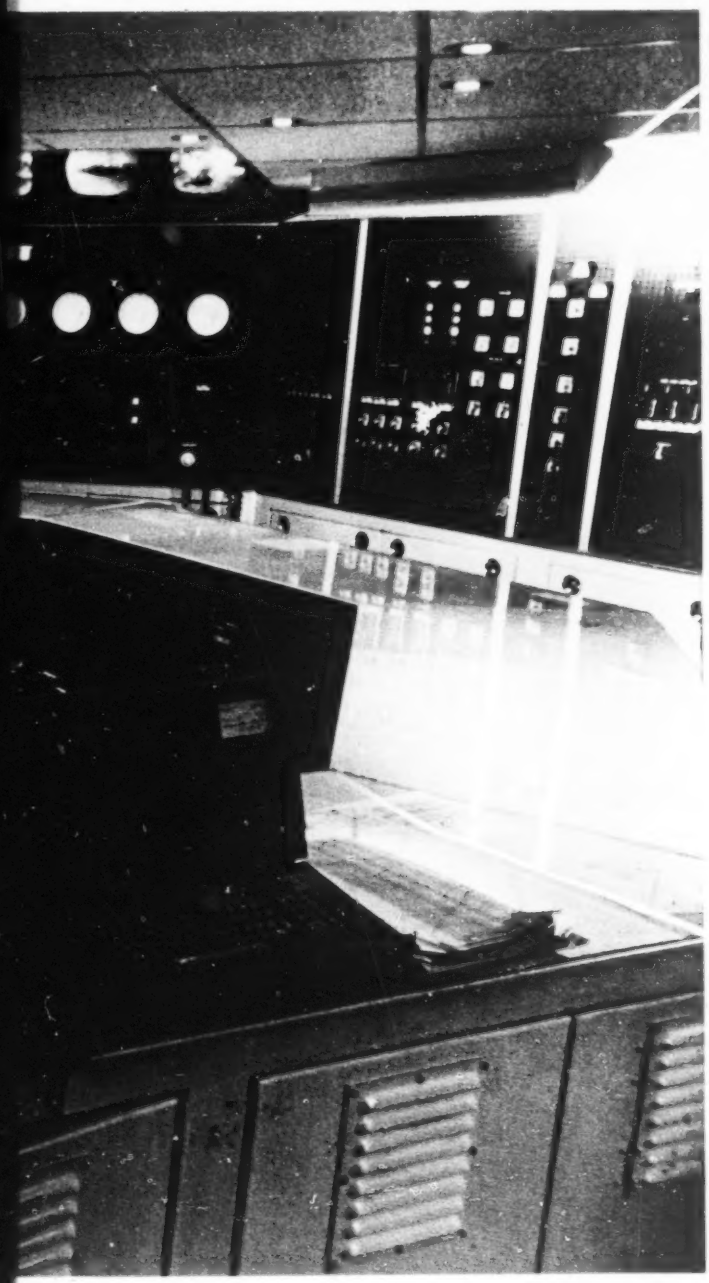
Control room of new blast furnace. Major functions of the furnace are electronically monitored and computer controlled.

F. The Steel Industry Has Made Environmental Progress

Since the key environmental laws were enacted, most of the steel industry's major pollution sources have been brought under control. The industry continues to support reasonable requirements which provide benefits to human health.

At the end of 1979, the steel industry was controlling 95 percent of its airborne particulate emissions and 91 percent of its water pollutants.

By 1982, as required by the Clean Air Act, the steel industry will be removing 96 percent of its airborne particulate emissions. By 1984, under requirements in the Clean Water Act, the industry would control over 99 percent of its water pollutants.



To reach the high levels of pollution control attained by 1980, the steel industry had installed $8.5 billion of equipment (1980$).

In 1980, the steel industry spent $510 million on pollution control facilities, and its spending in 1981 is at an equivalent rate.

In addition to capital costs, the annual operating costs of pollution control equipment are a significant added cost. In 1980, about $27 a ton had been added to the cost of steel to pay for operation, maintenance and capital charges associated with environmental control facilities.

* * *

Considering the steel industry's impressive progress to date, it is difficult to justify on a cost-benefit basis the limited improvements that might come from additional pollution control requirements. Diversion of scarce capital and operating funds from steel production to pay for additional pollution control requirements over and above those needed to meet 1982 requirements of the Clean Air Act, and those imposed by the 1984 Water Act deadline, could cause the steel industry to lose significant production capacity and jobs.

G. The Steel Industry Has Made Financial Progress

Steel at the Crossroads presented in detail a practicable modernization scenario and estimated how much such a program would cost. The original *Crossroads* also noted that because of poor profitability and inadequate capital cost recovery, the industry would not have sufficient funds to meet its financial needs for modernization and other requirements.

The Steel Tripartite Advisory Committee — a government advisory committee comprised of government, labor and industry representatives — during 1980 quantified the industry's financial shortfall (funds available from all sources versus capital required for modernization and environmental needs). Under then current policies, the shortfall was calculated at $1.7 to $2 billion per year over the next five years. The Steel Tripartite Committee also recognized that government extension of time to meet environmental goals, as well as faster capital recovery (including refundability of the investment tax credit) could reduce the industry's capital shortfall significantly. At the same time the Steel Tripartite Committee assumed that the industry would do its part to speed modernization.

In order to reduce some part of the estimated shortfall, steel companies have sought to secure additional funds from both internal and external sources.

Internal Sources of Funds

The principal source of additional internal funds was identified as coming from improved utilization of existing assets. Individual steel companies during the past year have announced that they have been carefully reexamining

their assets to see whether they are being most effectively used. As a result, many companies have sold, or are in the process of selling, properties to realize cash.

For example, U. S. Steel sold its Universal Atlas Cement Division and certain real estate; National, Republic, U. S. Steel and others sold domestic coal properties and Kaiser Steel sold part of its interests in Canadian coal properties. Such sales provide additional cash for modernization efforts. Aggregate sales of such properties in 1980 generated several hundred million dollars.

External Sources of Funds

Despite a debt-equity ratio of 49 percent, substantially higher than that of all manufacturing companies (33 percent), the steel industry in 1980 was able to secure significant additional funds and/or fixed assets. This required a variety of financing techniques, some of which were innovative. Listed below are some of the approaches used.

- *Leveraged Leasing*
  This involves leasing rather than owning some portion of a steel operation. The funds for the new facility are provided by the lessor (owner). The steel company, which operates the facility, makes rental payments to the owner. The owner claims the tax benefits from the transaction and passes some portion of these on to the lessee (steel company) in the form of lower rental payments. The effect can be a lower cost of borrowing, particularly for a company unable to use all its tax credits and deductions on a timely basis. Examples of this type of transaction include the leasing of a coke battery by U. S. Steel, and new ore carriers by Bethlehem Steel, Republic Steel and U. S. Steel.
- *Debt Financing*
  Most steel companies in the U. S. have become increasingly involved in using industrial development bonds to finance environmental equipment. The interest paid on these bonds (which are issued by public authorities) is exempt from Federal income taxes. This enables companies to acquire environmental facilities at less total cost than would be the case if they issued their own taxable bonds. One company went a step further by utilizing a debt instrument whose interest rate varied with prevailing market rates.

  Despite poor returns and above average debt-equity ratios, steel companies were able to increase their long-term debt by over $600 million in 1980. Further increases in borrowing are severely constrained by the level of the industry's debt ratios which are at the maximum generally acceptable to the investment community. This problem will be alleviated to the extent that steel companies' profits expand and their underlying equity base grows.
- *Long-Term Purchase Agreements*
  Despite the future market potential for certain steel products, most steel companies do not have the funds necessary to construct facilities for the production of these products. Arranging financing, supported by long-term commitments from customers has been one innovative approach to the problem. For example, in April 1981, U. S. Steel announced a 600,000-ton seamless pipe mill to be built on such a basis.
- *Joint Ventures*
  For years joint ventures have been a common type of financing arrangement for iron ore and coal properties. Steel companies in these ventures participate in the financing of a property which is usually operated by a third party specialist. In recent years steel companies have established joint ventures in areas other than raw materials and with participants other than domestic steel companies.

* * *

These actions by steel companies together with more effective utilization of assets have increased the cash available for investment to improve the overall efficiency of the American steel industry.

H. Financial Results Have Improved

For years the break-even point of the American steel industry has been rising steadily and, according to independent experts, recently reached an estimated 80 percent of capability utilization. Improved operating performance and the elimination of marginal facilities has now resulted in a significant reduction in the industry-average break-even point.

Steel companies have taken steps to improve cash flow which will assist the internal generation of funds needed for modernization.

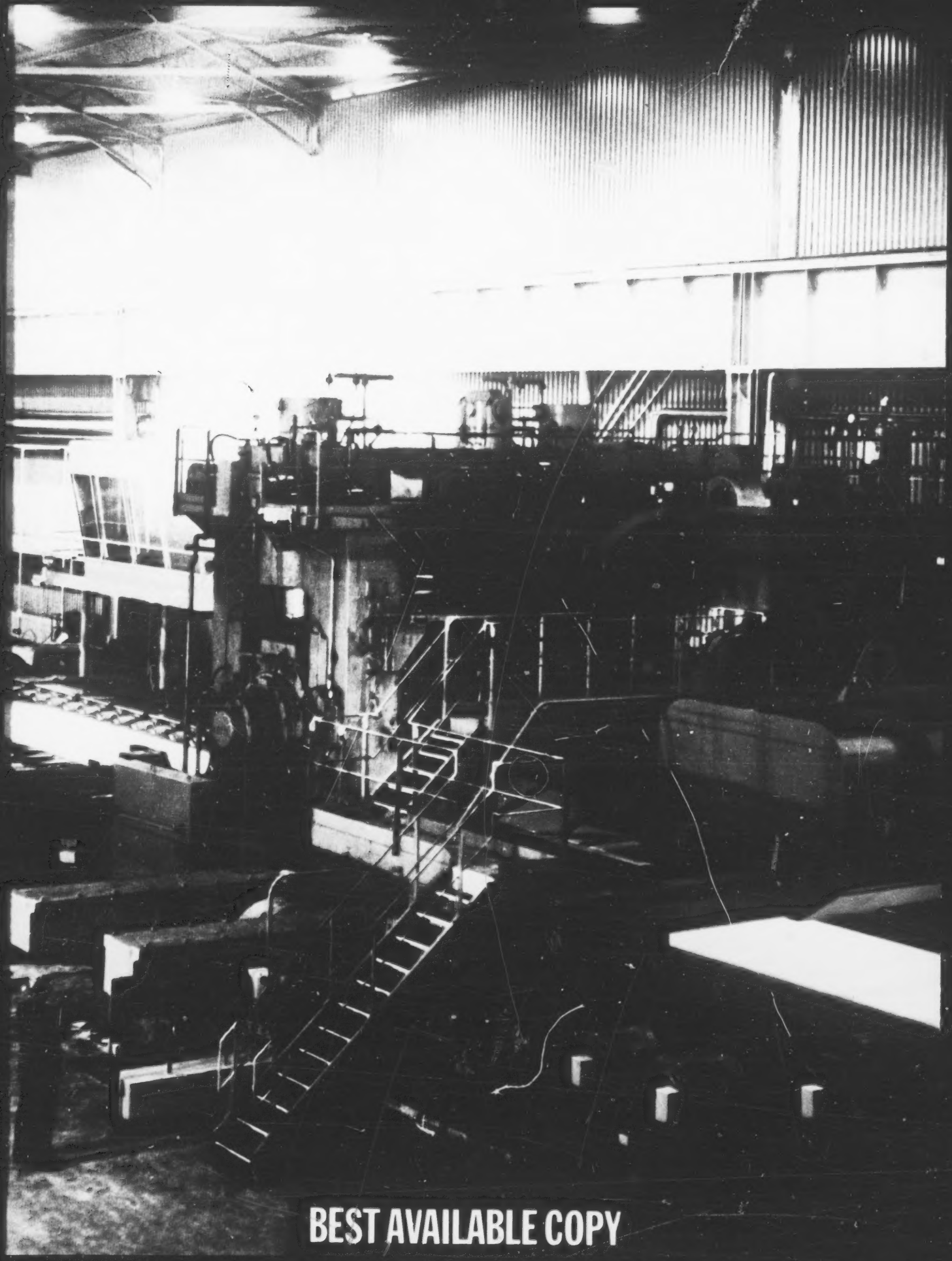
The result of these efforts is becoming apparent. In 1980, despite a capability utilization rate of only 72.8 percent, the industry's available funds (net cash flow plus change in long-term debt) was about $4 billion. This compares to about $3 billion in 1979, at a utilization rate of 87.8 percent. Thus, there has been approximately a one-third improvement in available funds, despite a 15 percent reduction in the operating rate (Appendix C).

Despite the earnings improvements reported by several major steel companies for 1980, indicating a substantial turnaround from 1979 results, many of these companies had marginal operating income or losses from their steel segments.

With proper public policy incentives, steel companies can be expected to continue to invest in modernizing steel facilities. The industry is clearly trying to get the funds needed for modernization and, furthermore, by eliminating obsolete facilities, is preparing the way for further action to increase efficiency and cost competitiveness.

*** * * Summary * * ***

The steel industry has taken major steps to modernize, improve efficiency, meet environmental goals and improve capital availability. However public policies must also be put in place which will permit the American steel industry to carry out the modernization described in *Steel at the Crossroads*. If they are not, the industry's maximum efforts will be inadequate to the task.



BEST AVAILABLE COPY

2. Increasing Awareness of Industry Problems

An increasing awareness of this nation's need for a strong industrial base has developed at all levels of government and in the public.

It is now widely recognized that a healthy domestic steel industry is essential to a strong industrial base. Governmental recognition (both by the Executive and Legislative Branches) of the problems facing industry is a major step toward development of government policies and programs designed to enhance rather than impede the self-improvement efforts of steel companies.

A. Widespread Support for Steel Industry's Position

During the past year and a half, several studies have been conducted which demonstrate general awareness of the problems American steel companies face and the actions which are required to revitalize the industry. Despite their varied approaches and interests, nearly all the studies have arrived at the same basic conclusions concerning the problems and potentials of America's steel industry. These studies include statements which correspond closely with those expressed in *Steel at the Crossroads.*

In its study of the industry, for example, the Office of Technology Assessment stated, "... the steel industry is vital to the Nation's security and economic prosperity."[1]

A similar conclusion was contained in the final report of the Steel Tripartite Advisory Committee. This report asserted that steel is "a foundation for a substantial portion of our industrial base."[2]

These views were elaborated in a report issued by the General Accounting Office, which noted, "Access to reliable, low-cost sources of steel is essential to the competitive health of many industries such as machinery, vehicles, and construction, which are the essence of a productive economy."[3]

"America's domestic steel industry is in poor economic health and an extension of current trends indicates that it will become disturbingly worse ... Notwithstanding the presence of an active international system of global steel production, we conclude that a serious effort to modernize the domestic steel industry is warranted."[3] The same study also said, "The U. S. steel industry faces serious problems. Approximately 25 percent of the physical plant is too old to compete effectively with foreign producers and its productive capacity has been shrinking relative to U. S. demand."[3]

Congress has also become aware of the problem. Members comprising nearly half the United States Senate and more than a quarter of the House of Representatives have formed separate steel caucuses and have actively supported the steel industry's modernization efforts.

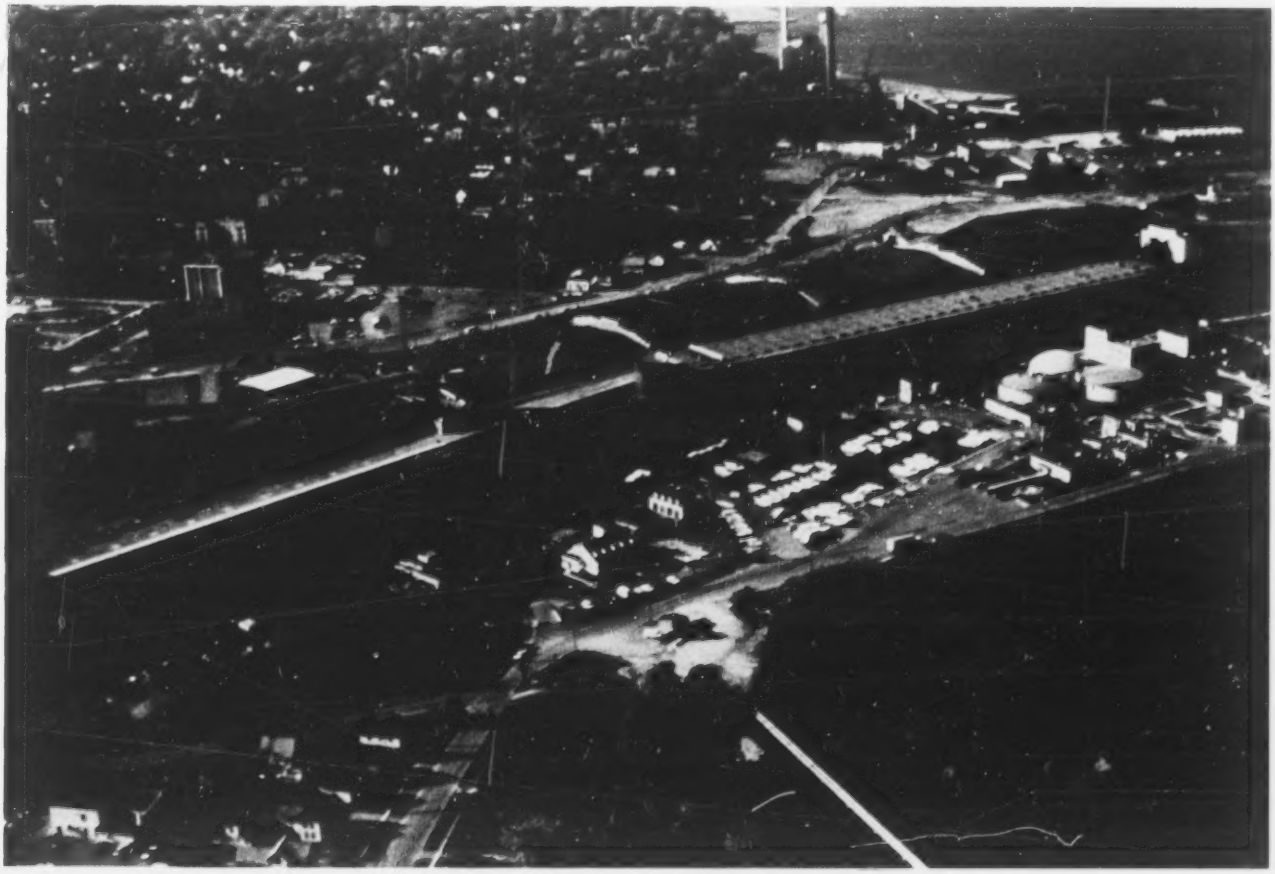
Moreover, the Administration is sensitive to the need for change. President Reagan, during

A modern steel plate mill in action. Plate has vital applications in national defense, and energy production, refining, transport and storage.

[1] Office of Technology Assessment: **Technology and Steel Industry Competitiveness,** p. 3.

[2] Steel Tripartite Advisory Committee: **Report to the President on the U. S. Steel Industry,** p. 2 of cover letter.

[3] Controller General, General Accounting Office: **Report to the Congress: New Strategy Required for Aiding Distressed Steel Industry,** pp. i and 8-1.



A modern ore carrier docked alongside an iron ore terminal. In recent years, domestic steelmakers have made major investments to upgrade their raw materials production, transport and handling.

his campaign, stated that, "America needs a modern, world-class steel industry. My Administration will support government policies which enable us to achieve it."[4]

Government Studies Confirm Industry Conclusions

The studies mentioned above essentially reach the same conclusions as set forth by the industry in *Steel at the Crossroads* (Appendix A).

The General Accounting Office study states:

"Our overall conclusions parallel those of both the Office of Technology Assessment *(Technology and Steel Industry Competitiveness)* and the Steel Tripartite Committee, which served as the basis for the Administration's latest program proposals."

"We also agree on priority policy action areas for industry revitalization. These include

- assistance with capital formation to promote modernization investment,
- an effective trade policy to ensure reasonable control of steel imports, and
- increased flexibility in administering environmental laws."[5]

Effective coordinated action by government in all three of these critical areas is integral to the industry's modernization effort.

B. Actions Have Been Taken

Programs outlined by both Congress and the Executive Branches are intended to address these issues, and governmental action has begun in each of these key areas.

Steps Toward More Rapid Capital Cost Recovery

The tax law change that America and the steel industry need most is to free capital cost recovery from the useful life concept; this would permit faster capital cost recovery than

[4] Statement by Governor Ronald Reagan issued by Reagan/Bush Campaign Committee, Tuesday, September 16, 1980.

[5] Op. cit. pp. 8-1 and 8-2.

is possible under current tax law. There is widespread recognition that revisions in present tax policy are necessary to accelerate capital cost recovery and thereby support more investment in new plant and equipment. Legislation to effect this is now pending in Congress.

Regulatory Reform is Under Way

The Reagan Administration has begun to examine Federal regulations to determine which have hampered business and local government and raised costs beyond any benefits the regulations have produced. Substantial benefits to all industry can be expected to result from this review.

Environmental Regulations are Being Modified

Since the publication of *Steel at the Crossroads* a number of studies have concluded that changes must be made in environmental regulations to reduce the environmental capital cost burden on the steel industry to enable the industry to proceed faster with the modernization of its production facilities — which would have a favorable environmental effect.

A number of important actions have taken place. For example, the Steel Tripartite Committee report recommended an extension of some of the deadlines in the Clean Air Act. This extension, which has the support of the Administration, is now before the Congress.

The Steel Tripartite Committee also recommended that the "bubble concept" be applied with greater flexibility. EPA has now adopted a revised and improved air bubble policy which permits a plant or area to be treated as a single source rather than requiring the treatment of all sources in a plant or area individually.

In addition, EPA has:

- Authorized the "roll over" of water permits for one year pending issuance of new Federal water guidelines, and is considering an additional extension.
- Intensified its efforts to revise the National Ambient Air Quality Standard for total suspended particulates.
- Proposed changes in "new sources" definitions which would ease the problem of replacing steel facilities where there is no increase in rated capacity or allowable emissions. This would encourage the modernization of industrial facilities.
- Proposed water effluent limitation guidelines which include some consideration for steel industry central treatment plants. When cost-benefit analyses are completed it is expected that these rigorous guidelines will be significantly moderated.

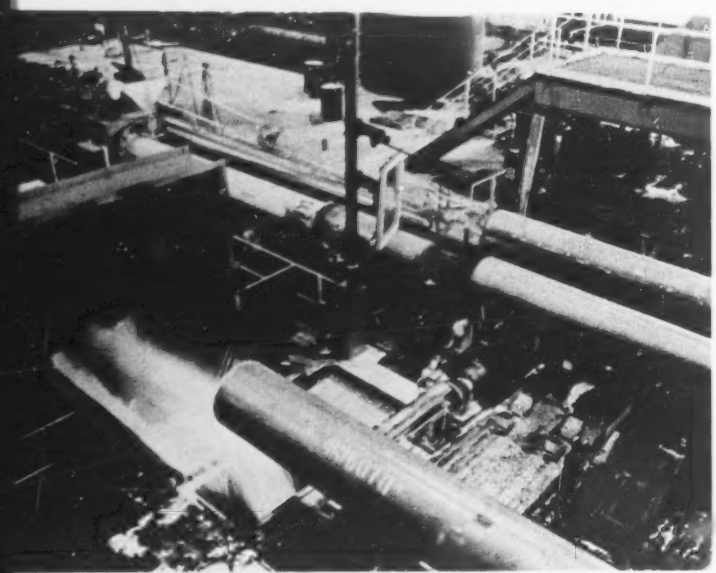
Trade Law Enforcement Has Been Improved

A revised and strengthened Trigger Price Mechanism (TPM) is now in effect and being used to monitor imports of basic steel products to help determine those which may have been dumped in the U. S. market.

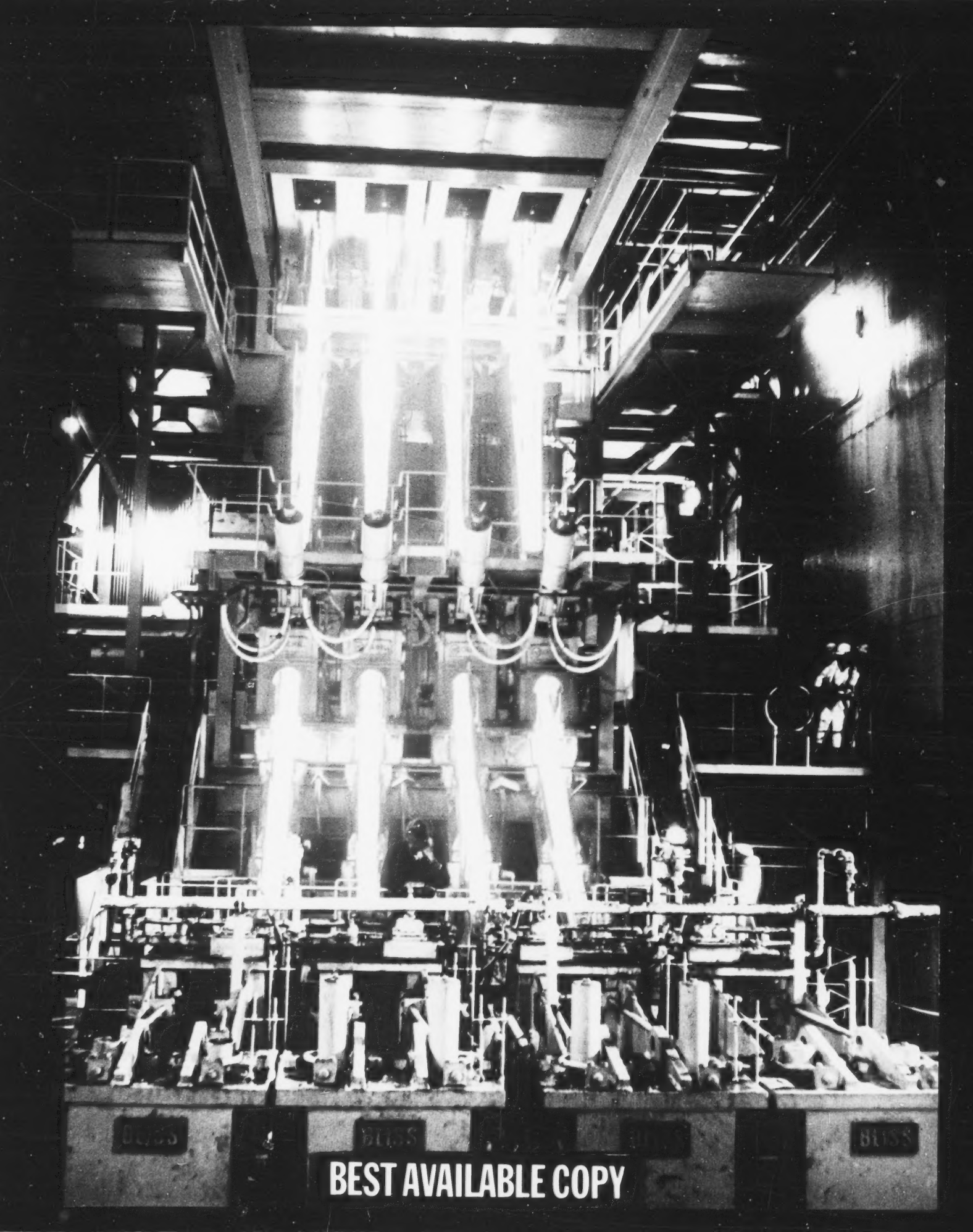
The TPM now contains a "volume trigger". Stainless and tool steels have also been provided with a surge monitoring mechanism. The volume trigger will, under certain conditions, accelerate government review of import surges and, at certain operating rates, result in the examination of import transactions to determine if they are at less than fair value or are subsidized. Suits can be commenced by the government or by private parties — if the government does not wish to act, evidence will be provided to private parties who can file suit. Such private suits will not result in the termination of the TPM.

The Reagan Administration has committed itself to the enforcement of our trade laws and the concept of fair trade. It is important to the future of the industry that vigorous enforcement occur.

These matters are discussed further in Chapter III.



Expanders at a 48-inch steel line pipe mill. This size pipe is used for major oil and gas pipelines.



BEST AVAILABLE COPY

3 Actions Are Still Needed

Previous chapters have described some of the efforts steel companies have taken to accelerate their modernization. They have also underscored the increasing awareness and support of government officials concerning the need for a strong American steel industry.

The industry has made discernable progress, but still confronts a wide spectrum of problems which stand in the way of the major modernization advances it must yet achieve. Individual steel companies need to accomplish much more to solve their modernization problems. Government policies must ensure the right climate for industry revitalization, including public policies which would permit steel companies to achieve competitive rates of return.

The major problems affecting the industry continue to be inadequate capital formation, unfair international trade, and excessive environmental regulation.

While getting control of the national budget and an excessive rate of inflation, the government must also contribute to solving these other problems if the nation is to regain its strength and continue as the leader of the free world.

A. Capital Recovery Is Inadequate

There is now a consensus that capital recovery under the present tax system has failed to provide adequate funds for reinvestment in basic industries. This, combined with an inadequate cost/price relationship, has deprived the steel industry of sufficient capital funds for modernization.

Capital Recovery Must Be Accelerated

The need for a change in the tax laws affecting capital recovery is widely recognized by those who have studied the financial condition of steel and other capital intensive industries. In no other major steel producing country is there a longer capital recovery period for steel investment.

Canada, which has a strong, profitable and modern steel industry, permits the recovery of steel equipment capital cost in about 2½ years — one principal reason why on the Canadian side of Lake Erie a new greenfield steel plant has been constructed by a Canadian company, contrasted with the inability of a U. S. company to justify a similar facility on the U. S. shore.

Under our tax laws, U. S. depreciation policy has over-emphasized the useful life of steel plant and equipment and has seriously impeded the ability of capital intensive industries to utilize advanced technology. The steel industry is still required to write off the original cost of plant and equipment over a period of 12, or more years. These depreciation regulations based on the useful life concept ignore the devastating effect of inflation and nullify the industry's ability to recoup its investment and replace its facilities.

B. The Industry Supports Administration Proposals

The domestic steel industry believes that enactment of the President's "Program for Economic Recovery" will restore confidence in the economy and achieve the goal of rein-

A modern four-strand continuous billet caster in operation at a Midwest steel mill. Billets are processed into a wide variety of bar, rod and wire products. By the end of this decade, the domestic industry hopes to produce 45 percent of its semi-finished steel with the continuous casting process.

dustrializing America. We specifically support and urge prompt action on the capital recovery proposal, which is the core of the Administration's Accelerated Cost Recovery System.

The steel industry believes the Administration's five-year capital recovery proposal for machinery and equipment, would open a new era for industry through recognition of the need to expand investment to improve productivity. The Administration's proposal will eliminate the concept of recovery over the useful life of machinery and equipment which has caused an alarming degree of obsolescence in capital intensive industries.

The steel industry is convinced that the entire economy will be well served by the prompt adoption of new capital recovery policies. The steel industry will benefit immediately through the stimulation of increased purchases of steel by customers for capital goods production. The adverse impact of inflation on real capital recovery will be much less under the Administration's proposal than under the present system, since the recovery period will be substantially shorter.

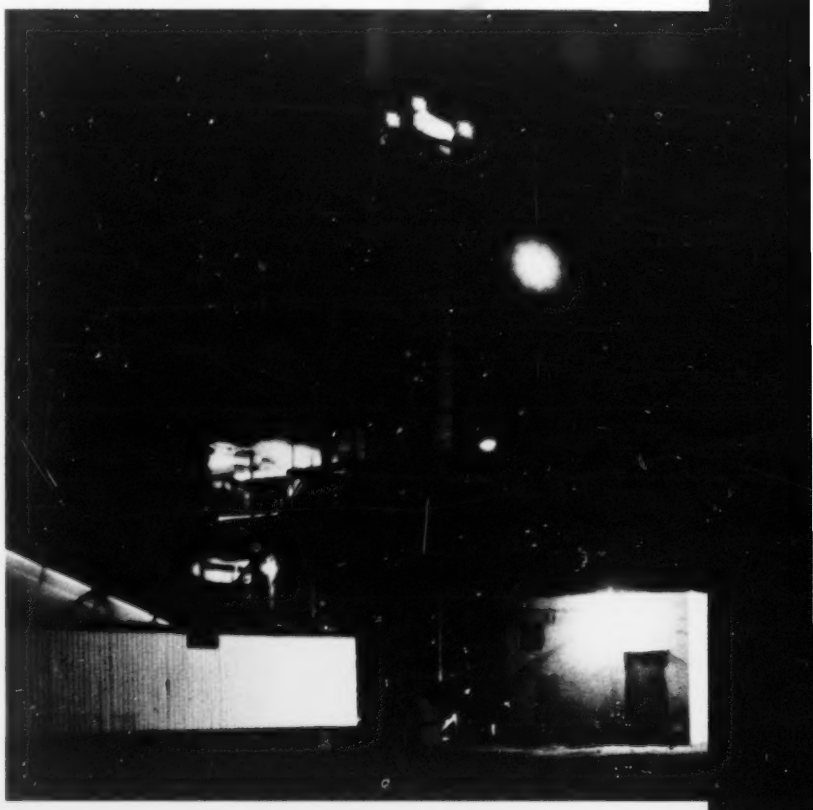
Assuming a reasonable level of profitability in steel, the cumulative benefit of accelerated capital recovery would be substantial. With a constant annual level of investment over a five-year period, the cumulative capital recovery under accelerated depreciation would be almost double for steel than under the present system. This change would be a major benefit to an industry which is investing well over $3 billion a year, and one which the Steel Tripartite Committee indicated had an annual capital shortfall up to $2 billion for modernization requirements.

* * *

More rapid capital recovery has long been the principal tax policy objective of the steel industry. The Administration's proposal is the kind of capital recovery program which is critical to the future of the U. S. economy, and to the steel industry. The President's tax proposals represent an opportunity to turn around the American economy. They deserve the full support of the steel industry, the American people and the Congress.

C. Other Tax Policy Changes Are Needed

The steel industry recognizes the necessity of passing the President's program for economic recovery without substantial change. The industry also supports other tax law changes that would provide additional funds for investment and which should be adopted at an appropriate future time as part of a more comprehensive change in tax laws.



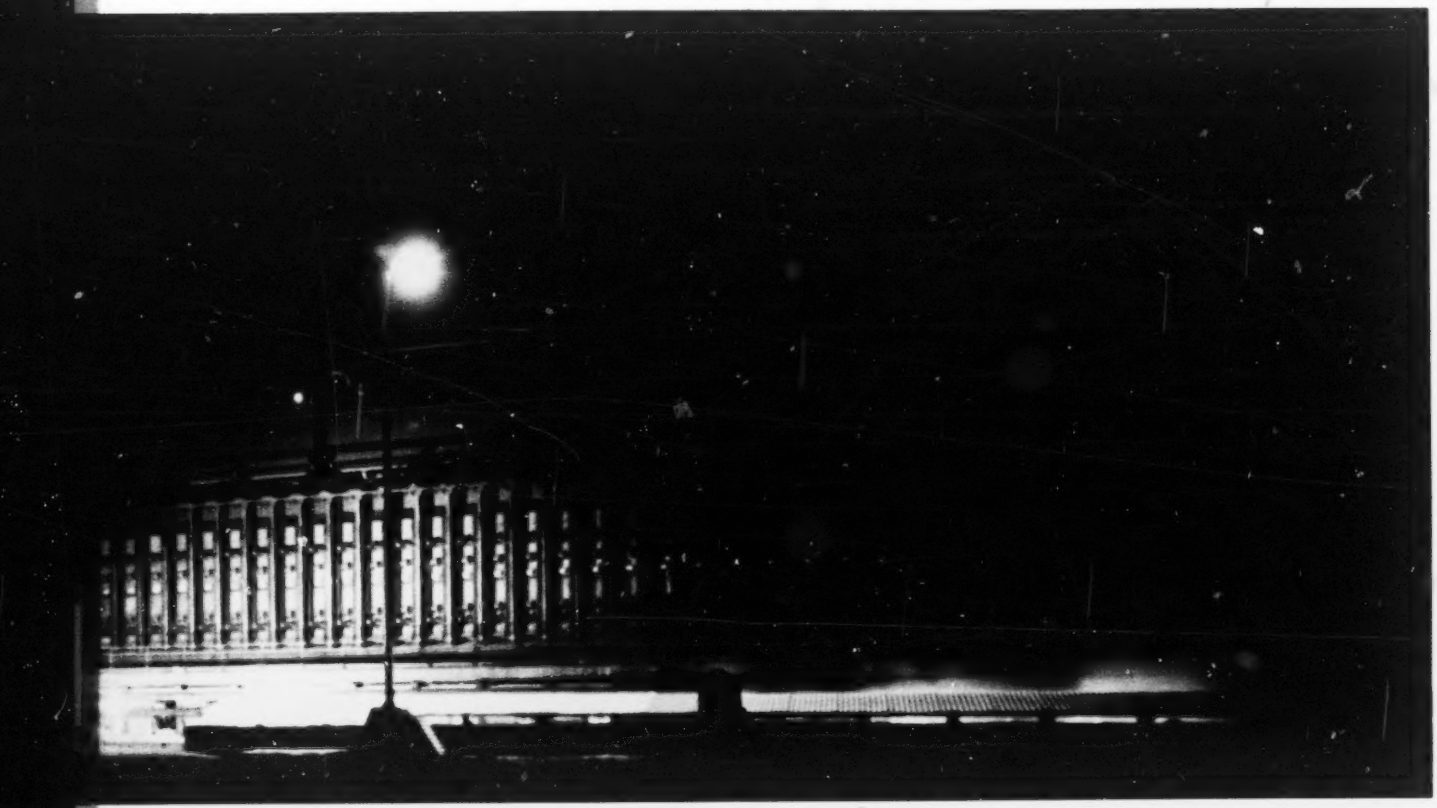
A recently installed coke battery. The steel industry estimates that it will have to replace about half its existing coke facilities during this decade.

Utilization of Earned Investment Tax Credits

Many companies in the steel industry, because of severely reduced profitability and cash flow in recent years, have accumulated substantial amounts of unused investment tax credits. In addition, some companies are currently earning investment tax credits which cannot be used until profitability improves. Tax changes to permit current, rather than future, utilization of these credits, despite low profitability, would provide funds for companies in the steel industry when they are most needed for new facilities.

Energy Tax Credits

The Energy Tax Act of 1978 was passed to promote conservation, encourage the installation of energy efficient equipment and the conversion of industrial processes from the use of oil and natural gas, to that of alternate fuels.



Regulations issued by the Internal Revenue Service have very narrowly interpreted the types of equipment and conversion processes which qualify for the energy tax credit. These regulations should be changed. If not, the law should be amended to ensure that investments since 1978 in major energy saving industrial processes, such as the continuous casting process in the steel industry, qualify for purposes of the energy tax credit.

Corporate "Minimum Tax"

The application of the minimum tax to corporations has had a discriminatory impact on industries which, because of low profitability, are least able to pay and most in need of cash for investment.

In view of the capital formation goals of the Administration and of Congress, and the increased awareness of the importance of capital formation to economic activity and improved productivity, the continued application of the minimum tax to corporations can no longer be justified and should be discontinued.

D. Environmental Regulations Are Long Overdue For Change

Since the passage of existing environmental laws there has been significant deterioration in the United States economy. The nation today is properly concerned with lagging productivity, high rates of inflation, unemployment, and increased dependence on imports. We have a new Administration dedicated to regulatory reform and committed to the principle that if the nation is to prosper, business must increase its investment and efficiency.

The time has come for a reexamination of our environmental statutes and the regulations which have been implemented under them to determine their effect on efficiency and productivity in American industrial companies. We have reached a point where the goal must be to achieve a healthy environment within the framework of a healthy economy.

Regulatory Changes Can Be Made

Under the Administration's policy of regulatory reform, changes in regulations can be made administratively which will reduce the requirements imposed on industry, without adversely affecting the attainment of the nation's environmental goals.

Regulations issued under the Clean Air Act are based on the attainment of present National Ambient Air Quality Standards, set for the protection of health. Some of the present

standards, especially the standard for particulate matter, have been shown by sound scientific data to be more stringent than necessary for health protection. The Administration should revise these standards.

The Steel Tripartite Committee recommended to the Environmental Protection Agency (EPA) that the "bubble concept" be applied with greater flexibility. The "bubble concept" effectively treats a plant or area as being a single source of pollution under an imaginary "bubble." This allows companies to examine and reduce the total level of pollutants, rather than the far more expensive approach of treating each source individually. The EPA has issued a revised and somewhat improved air bubble policy. However further flexibility is required.

The steel industry urges other regulatory changes permitting the states to assume the full authority provided under the Act for cost effective controls. This would permit greater utilization of the bubble policy, and interpretation of requirements for Reasonably Available Control Technology by the individual states.

Regulations under the Clean Water Act should be revised to eliminate an arbitrary requirement of treatment for its own sake. EPA should not require the application of Best Available Technology, when it is not economically achievable.

As authorized in the Clean Water Act, the States should be given more authority to establish appropriate water quality standards, taking into account the best uses of stream segments as individual cases warrant.

EPA should also authorize the use of a water bubble, which if properly defined, could significantly reduce effluent control costs of the steel industry. We urge the prompt adoption of a water bubble.

Clean Air Act Changes Are Needed

The Clean Air Act is scheduled for reauthorization in the current Congress. The Act should retain its basic structure but be amended to eliminate or simplify provisions which are demonstrably complex or unreasonable. Amendments should eliminate the requirement for attainment of secondary (nonhealth related) standards. Relaxation of over-stringent deadlines and reduction of complex permitting requirements, would enhance industry's ability to increase efficiency, productivity and stimulate industrial growth.

Details on these and other changes in the Clean Air Act proposed by the steel industry are contained in a separate document.

Stretch-Out Amendment Should Be Implemented Promptly

Steel companies need to spend capital funds immediately in order to comply with the 1982 attainment date in the Clean Air Act. The Steel Tripartite Committee recommended that legislation be adopted to enable steel companies to stretch out environmental expenditures, provided the capital made available by any deferment is invested in modernization of existing steel facilities.

Legislation providing a stretch-out is supported by the industry, the United Steelworkers of America, EPA and environmental groups. It has been passed by the House of Representatives and the Senate. This legislation, which is in addition to other needed changes in the Clean Air Act mentioned above, must be implemented promptly if it is to speed the modernization efforts of steel companies.

Clean Water Act Changes Are Needed

The Clean Water Act, which comes up for reauthorization in 1982, should be amended to eliminate goals long recognized as unreasonable and unrealistic. These include zero discharge of pollutants, and the goal that all streams be fishable and swimmable, without consideration of cost or of the best uses of specific stream segments.

Environmental regulations are still more restrictive than needed to protect public health. They provide little flexibility for local conditions and contribute to the premature shutdown of steelmaking facilities. As a result, they require wasteful spending of scarce capital funds.

An amendment, similar to that for air stretch-out, should be enacted to extend for three years the 1984 deadline of the Clean Water Act.

The Clean Air Act and Clean Water Act reforms proposed can result in modernization in steel and in other industries without adversely affecting public health or the quality of the environment in this country.

E. Administration of Steel Trade Policy Is Key to the Industry's Revitalization

The American steel industry supports an open world trade system. Foreign steel should have an opportunity to compete in the American steel market so long as it is fairly traded. The industry has been a supporter of the Tokyo Round Trade Agreement involving more

than 100 countries, which reduced tariffs and promoted efforts to remove non-tariff barriers.

Domestic steelmakers believe they are the principal low cost producer for the American market. But the U.S., the only major open steel market in the world, cannot ignore the penetration of unfairly traded imports. Heavy flows of such imports cripple the domestic industry and undermine its capability to continue as the principal supplier of steel for this market.

TPM Identifies Potential Trade Violations

There are no import restrictions on steel traded in the U. S. market in accordance with U. S. trade statutes and with internationally agreed upon trade rules. The Trigger Price Mechanism (TPM) is not a restriction, but rather an administrative procedure for identifying potential violations of U. S. trade law.

U. S. trade law is consistent with international rules established in the Tokyo Round Agreements. These rules have become the international legal basis for expansion of world trade.

The need for the TPM is accentuated by the currently depressed state of the world steel industry, in which more than one-half of the steel produced comes from government-controlled or government-subsidized steel companies. (Appendix B.) In a depressed world steel market, these producers sell their products at prices below average costs, in order to maintain home employment and obtain foreign exchange.

Unfair steel imports transfer to American steel producers and workers the unemployment and adjustment problems that foreign producers and their governments are seeking to avoid.

Enforcement of U. S. trade law through the TPM is the most effective answer to the problem and is essential to the industry's revitalization program.

Effective TPM Administration Is Essential

Accurate, up-to-date calculations of Japanese costs of steel production — the basis for the TPM — are integral to the success of the entire program. Expeditious use of the import surge provision is also a vital component of the TPM program. Removing products from coverage, failure to audit related party transactions which result in evasion of the system, and granting unjustified pre-clearances which weaken the TPM should be avoided. If imports take a significant share of the U. S. market by means of dumping or subsidization, American steel producers will not be able to accomplish their modernization goal.

* * *

Accordingly the steel industry urges the U.S. Government to:

- Eliminate dumped and subsidized steel imports.
- Advise foreign governments either to eliminate practices which distort the competitive capabilities of their steel producers in U. S. markets, or to expect dumping and countervailing duties on such imports.
- Oppose subsidized financing of steel plant and equipment exports, which in turn cause predatory exports of steel products.
- Close loopholes in the foreign-trade zone laws and regulations.
- Make more intensive efforts in the Organization for Economic Cooperation and Development (OECD) and in the General Agreement on Tariffs and Trade (GATT) to obtain international recognition of steel problems and action to develop solutions.

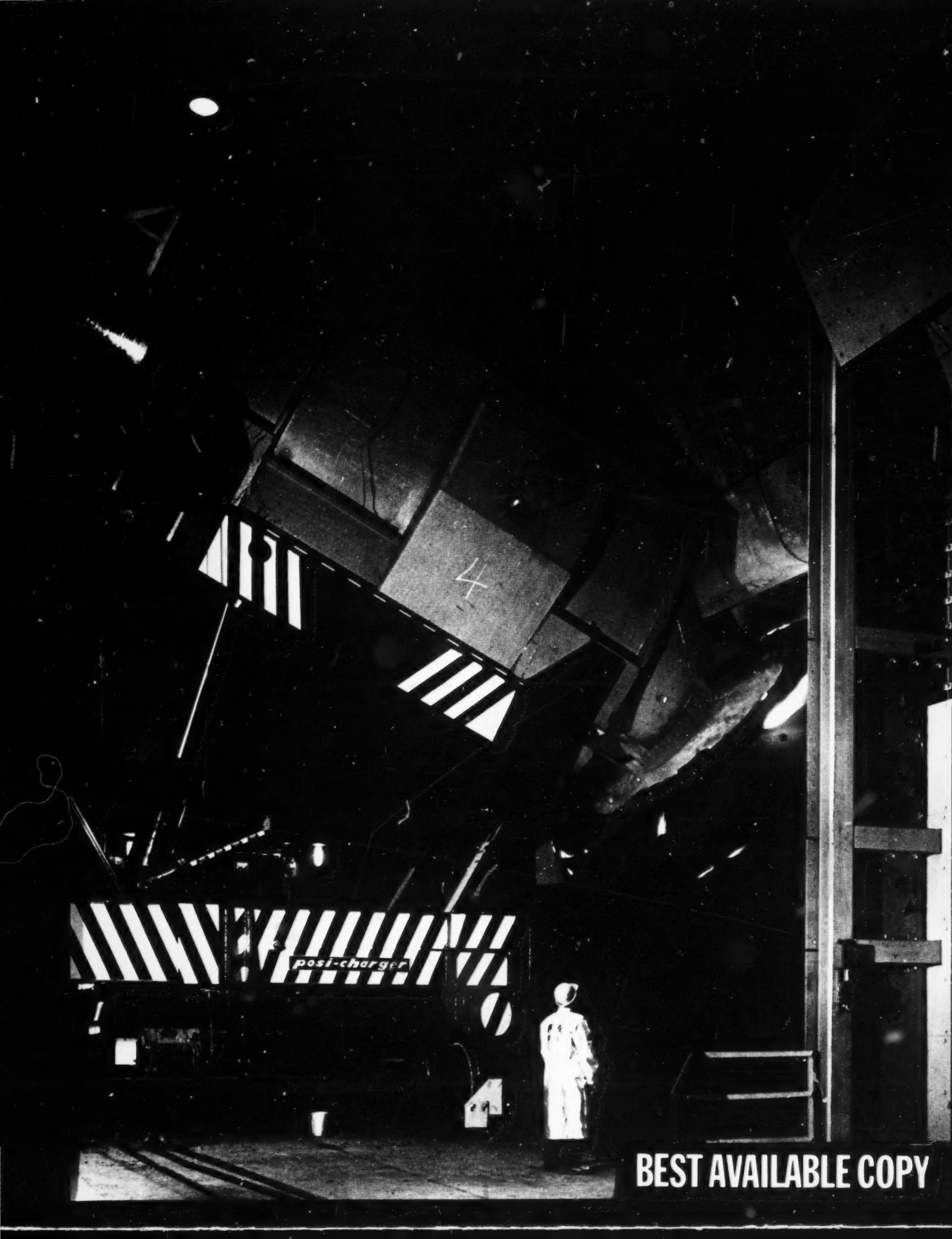
* * * Summary * * *

Steel companies are making progress in their efforts to modernize and become more competitive. Government policies appear to be headed in a direction which could speed progress. However, what has been done is merely the beginning. Much more needs to be done: by the steel companies through the installation of more modern facilities and by government in the form of policy changes.

The industry urges policy changes which speed capital recovery, change environmental regulations to more closely balance their costs with benefits to society, and enforce trade rules to ensure the industry's modernization program is not disrupted by dumped and subsidized imports.

Policy changes in all of these areas are essential if the domestic steel companies are to modernize rapidly and improve their competitive position in the 1980s.

The American steel industry supports the Administration's positions enunciated to date as a strong positive move in the right direction.



BEST AVAILABLE COPY

Appendix A

Summary of "Steel at the Crossroads" and Views of Others About This Study

In January 1980, the American Iron and Steel Institute published a comprehensive study which described the problems facing the American steel industry, discussed what steel companies were doing to solve these problems and recommended appropriate public policies to ensure that the United States will have a strong steel industry in the years ahead.

Steel at the Crossroads: The American Steel Industry in the 1980s was the launching point for an industry campaign to seek coordinated government policies essential to modernization and expansion of America's steelmaking capacity. This publication continues to serve as a timely statement of the steel industry's position on key issues which affect not only the domestic steel industry but the total industrial base of America.

Why Steel Has Been Losing Its Competitive Edge

The American steel industry is beset by serious difficulties — yet it has the potential to surmount those difficulties and emerge healthy, strong and vigorous. Although it is efficient today by global standards, it clearly has been "losing its competitive edge" for several closely interrelated reasons:

- Persistently low rates of return, coupled with unrealistic tax policies which fail to provide adequate recovery of capital costs;
- Capture of a significant portion of the domestic market by dumped or subsidized steel imports;
- Excessive government control and regulations, which significantly increase steelmaking costs and mandate spending of funds otherwise available for replacement and modernization of productive equipment;
- Reduced earnings as a result of government intervention in the marketplace determination of steel prices, thus restricting the recovery of cost increases;
- Escalation of steelmaking costs at a rate in excess of increases in steel prices.

Unless these detrimental conditions are promptly alleviated, a further decline of the domestic industry would appear to be inevitable — with tragic consequences for workers, firms and communities as well as the overall economy of the nation.

A Healthy Steel Industry is Essential if America is to Have a Strong Industrial Base

Steel is the world's most important industrial material. A strong American steel industry is essential for a strong American economy. America cannot afford to rely heavily on foreign steel, lest we become as dependent tomorrow on imported steel as we are today on imported oil.

Without a strong domestic steel industry, America's trade deficit would worsen, and the jobs of the 450,000 employees directly engaged in the production and sale of iron and steel products would be placed in serious jeopardy.

Revitalization of American Industry Generally — and Steel Specifically — is Needed to Keep America Competitive

Many sectors of American industry are becoming obsolete due to a lack of sufficient new investment in modern tools of production. This point was recently emphasized by Harold M. Williams, former chairman of the Securities and Exchange Commission:

"The United States now has the highest percentage of obsolete plants, the lowest percentage of capital investment, and the lowest growth in productivity and savings of any major industrial society. In fact, over the last two decades, the United States has had

Charging of a basic oxygen furnace. Such furnaces, which can make up to 300 tons of steel in less than 45 minutes, now account for more than 60 percent of domestic steel output.

the lowest portion of gross national product devoted to plant and equipment spending of any major industrial country."[1]

For American industry to reverse this downward trend of investment, savings by individuals and corporations must be encouraged. This will provide the capital formation which is essential to rebuilding a competitive industrial base.

Insufficient capital formation in the American economy has been particularly harmful to the steel industry — indirectly because two-thirds of steel shipments go to capital goods industries, and directly because real capital investment by the American steel industry has declined sharply in recent years. The results have been aging steel facilities, a decline in the rate of improvement in output per manhour, and less cost-competitiveness.

The American steel industry needs to make significant capital expenditures during the next decade in order to remain cost-competitive. A closer balance between world steel supply and demand is expected in the latter half of the 1980s than was the case in the 1970s. Unless U. S. capacity increases as world capacity utilization rises, the U. S. economy will be seriously affected by tight steel supply and a growing steel trade deficit. Increased capital investment in the domestic steel industry is essential if these consequences are to be avoided. For the domestic industry to have the resources for substantially higher capital expenditures, additional profitability and improved capital cost recovery allowances are sorely needed.

[1] Remarks by Harold M. Williams to The Commonwealth Club, San Francisco, California, November 21, 1980.

The American Steel Industry Is At The Crossroads

How the American steel industry responds to the challenges lying ahead will to a large degree be dependent on the policies and actions of the U. S. government.

Two scenarios have been constructed to contrast possible developments over the next decade. Scenario I ("Aggressive Revitalization") portrays circumstances, including appropriate government policies, in which individual producers could improve their earnings, generate more capital, devote much greater resources to modernization, efficiency improvements, and expansion of capacity, and over the longer term provide significant benefits to steel consumers.

Scenario II ("A Continuation of Current Trends"), portrays what could happen with no significant changes in government policies: unprecedented reliance on imported steel, a huge steel trade deficit, an accelerating decline in the industry's efficiency and competitiveness, further facility closedowns, and substantial job losses in both steel manufacturing and related support industries.

The results projected under the two scenarios are as follows:

Scenario I Has Beneficial Results, Whereas Scenario II Has Harmful Results

	1978	1988	
	Actual	Scenario I	Scenario II
Apparent Steel Consumption (million tons)	117	134	134
Shipments (million tons)	98	117	as low as 85
Imports (million tons)	21	20	as high as 50
Exports (million tons)	2	3	2
Imports as a Percent of Apparent Consumption	18%	15%	as high as 40%
Raw Steel Capacity (million tons)	158	168	as low as 130
Employees in Steel Operations (thousands)	449	427	as low as 360
Steel Trade Deficit (1978 $) ($ billions at $400/ton)	$7.5*	$7	as high as $20

*Actual 1978 deficit was $5.6 billion (at $300/ton).

A comparison of the results under the two scenarios indicates that reliance on foreign sources is much higher under Scenario II. The vastly increased reliance on foreign sources could, during periods of steel shortages, result in drastically increased world prices that must be borne by American customers unable to obtain domestic steel.

Additionally, such heavy reliance on foreign sources could severely impact domestic steel employment. The number of employees directly engaged in the production and sale of iron and steel products will decline by as much as 90,000 under Scenario II, but could remain at approximately current levels under Scenario I.

Under the aggressive modernization program contemplated in Scenario I, it is estimated that new facilities would require about 45 percent fewer manhours per ton of finished product than the current average. The combination of new and existing facilities would result in a 20 percent overall reduction in manhours per ton by 1988. Although this scenario assumes greater productivity in terms of manhours per ton, increased output keeps employment levels from decreasing.

The modern, efficient steel industry described in Scenario I would permit an increase in shipments by improving the yield of raw steel to finished product. This would be accomplished by improving current operations as well as increasing the percentage of raw steel produced by modern methods such as continuous casting. Under this program, average product yield in 1988 could be 77 percent versus the 1978 average of 71.5 percent.

Clearly, one of the major problems faced by the steel industry is that it is an energy-intensive industry in a time of high energy costs. Studies of probable energy consumption in new steel plants indicate savings on the order of 35 percent per ton compared with existing facilities. Under Scenario I it is estimated that average energy use per ton would decrease by 15 percent by 1988, under Scenario II, decreases in energy in the aggregate would be minor.

The rapid installation of new and more efficient facilities under Scenario I would permit the American steel industry to largely offset rising labor, material and energy costs with productivity and efficiency improvements. This would improve dramatically the industry's ability to remain profitable and competitive ensuring a reliable supply of steel for domestic consumers.

To realize the modern and efficient industry improved government policies could make possible, massive capital outlays would be required. These capital expenditures include $4.4 billion per year for modernization, $.8 billion per year for environmental retrofitting, $1.3 billion per year for expansion and non-steel, etc. (1978$). Essentially the total capital requirements are more than double the level of industry expenditures ($2.9 billion per year) over the last decade. Without enabling government policies, the steel industry will be unable to meet these capital requirements, and a substantial capital shortfall will occur.

View Accepted by Others

The view that the American steel industry is at the crossroads has been accepted in several other reports and government studies. For example, an Office of Technology Assessment (OTA) report, *"The U. S. steel industry can be revitalized. . . For that to occur, however, steelmakers must increase their capital spending on productive facilities."*[2]

While many studies agree that there are tremendous benefits to be realized from the revitalization of the American steel industry, the steel industry's modernization needs far exceed its cash availability. This was confirmed by both the OTA and GAO with the latter stating that, *"Under existing conditions, the U. S. steel industry lacks sufficient resources to modernize. . ."*[3]

The inability of the industry to generate sufficient cash, either internally or externally, given current government policies, was also recognized by the Steel Tripartite Committee. The Steel Tripartite Committee made a detailed examination of the amount by which funds fell short of needs. It found that, excluding funds for expansion, the industry needs $6.1 billion per year over the first five years of a 25-year modernization program to update steel facilities and to meet environmental and health requirements, but the industry would have only $4.1 to $4.4 billion per year available. Thus, the Steel Tripartite Committee found that, *"The industry's capital uses to modernize its existing steel capacity and retrofit that capacity to meet environmental, and safety and health requirements would exceed the capital sources available to the industry for those purposes by an average of approximately $1.7 to $2 billion*

[2] Op. cit. p. 3.

[3] Op. cit. p. ii.

annually over the period 1980 to 1984."[4] The Steel Tripartite Committee Working Group also found that, due to cost savings to be realized with modernization, there would eventually be significant improvements in return on investment.

Changes in Government Policies Are Needed to Encourage Revitalization

A number of conditions must prevail in order for the American steel industry to meet the massive capital requirements needed for revitalization. Measures must be implemented to encourage and enhance rapid capital cost recovery, and rates of return must be improved.

Current U. S. tax laws have severely constrained the steel industry's ability to meet its capital requirements. These laws must be changed to divorce capital recovery from the so-called "useful life" concept and to provide much faster capital recovery. Although real revenue increases will be required in the early years of modernization to balance cash outflows, more rapid capital cost recovery should provide a sizable portion of the funds required to finance the modernization program.

Rates of return in the steel industry have been severely restricted by government policies. Many years of intervention by government in steel company pricing decisions — to an extent unknown to companies in most other industries — have held down the industry's revenues and earnings during cyclical periods when market conditions would have permitted higher returns. Likewise, our government has permitted significant quantities of dumped steel to enter America and during periods of reduced demand, accentuating the depressing effect of weak markets on steel prices. Such policies have condemned the industry to a condition of chronically depressed earnings, and have impaired its ability to generate capital for investment.

Encouraging dependence on foreign steel capability, partially as a result of government price constraints, is indeed a short-sighted policy. Any apparent savings to American consumers of steel when import prices are below domestic prices are likely to be more than offset by future steel imports at higher prices. This fact was apparent in 1973 and 1974 when the demand for steel in this country far exceeded domestic supply, and foreign steel was imported into this country at huge premiums over domestic steel prices.

Other Studies Support Industry Recommendations

Numerous studies have since supported the steel industry's position and have made policy recommendations virtually identical with those of the industry. For example, the study of the OTA concluded, *"A well-defined and vigorously implemented government policy has nurtured the Japanese steel industry's expansion and adoption of new technology.* ***The U. S. steel industry,*** *on the other hand,* ***has been hurt by a long series of federal Government policies that have frequently been uncoordinated, contradictory, and inattentive to critical issues."***[5] (emphasis added)

Similarly, the GAO report said, *"On the whole, both general and specific Government policy has not been consistently responsive to requirements for modernization. At times, it worked directly against modernization, as through the application of environmental regulations making it needlessly difficult for the industry to replace polluting old plant with cleaner, new plant. Each of the Federal policy decisions affecting the industry was framed with its own purpose in mind; no effort was made to assess their total impact on the industry's health."*[6]

Further, the Steel Tripartite Committee prepared a detailed examination of policy combinations which could cover the industry's capital shortfall (faster capital recovery and refundability, faster capital recovery and reduced capital expenditures, etc.) and then argued, *"A piecemeal approach to the steel industry will accomplish little. The problems of the industry cover a number of areas including capital formation, trade, environmental regulation, technology, and the adjustment of workers and communities to changes in industry conditions. Programs in any one of these areas depend upon progress in others. With or without Government assistance, measures directed only at one of these areas cannot set the industry on a new path. A coordinated and integrated set of initiatives, maintained for a three to five year period, or longer, is required to remedy the industry's situation."*[7]

[4] Steel Tripartite Committee Working Group on Modernization & Capital Formation, **Steel Industry Capital Sources and Uses Summary**, p. 2.

[5] Op. cit. p. 3.

[6] Op. cit. p. 6-1.

[7] Steel Tripartite Advisory Committee: **Report to the President on the U. S. Steel Industry**, pp. 6 and 7.

Finally, the GAO report, summing up, OTA's, the Tripartite Committee's, and its own views said, *"Our overall conclusions parallel those of both the Office of Technology Assessment* ***(Technology and Steel Industry Competitiveness: 1980)*** *and the Steel Tripartite Committee, which served as the basis for the Administration's latest program proposals. We also agree on priority policy action areas for industry revitalization. These include: assistance with capital formation to promote modernization investment; an effective trade policy to insure reasonable control of steel imports; and, increased flexibility in administering environmental laws."*[8]

While the steel industry does not agree with all the findings and recommendations in the reports cited above, these reports do affirm the seriousness of the steel industry's problems and their potential for rectification.

Summary of Key Policy Recommendations

The member companies of the American Iron and Steel Institute continue to recommend that the appropriate government authorities implement a number of measures that are critically needed to enable the companies to embark aggressively on modernization and revitalization programs. These measures include:

- Policies that would encourage and permit steel companies to achieve competitive rates of return, accompanied by provisions for accelerated recovery of capital costs.
- Modifications of government-mandated regulatory programs (notably environmental) that would reduce non-income-producing capital demands and would avoid unnecessary increases in operating costs associated with such facilities.
- Firm assurances that imported steel, either by excessive volume or unfair pricing, will not disrupt the domestic steel market, particularly during the industry's revitalization efforts.

Effective measures in all three critical areas are urgently needed if America is to maintain a solid industrial base supported by a modern, competitive steel industry.

[8] Op. cit. pp. 8-1 and 8-2.

Appendix B

How Foreign Governments Support and Subsidize Their Steel Industries

Many foreign steel companies are able to sell below their costs of production since they are either government owned or subsidized. By underwriting exports of steel at prices below cost, foreign governments can assure a higher level of steel industry employment, thus avoiding social costs related to unemployment.

The fact that most foreign steel companies are, indeed, either government owned or government subsidized was well documented in the original *Crossroads* report.

The following news releases document the acceleration of the trend:

European Economic Community

"Even though the West German steel industry could compete with the world's most cost-effective producers, it 'cannot compete with the combined forces of Europe's taxpayers who subsidize their steelmakers to the tune of up to $60 a ton,' Willy Korf, president of the newly-formed European Independent Steelworkers Association, said here last week.

'Roughly 70 percent of all European steel enterprises, particularly those in Great Britain, France, Belgium, Luxembourg and Italy are either nationalized or financially dependent on the state,' he said."

American Metal Market
March 25, 1981

"West German government officials will take up the matter of public steel subsidies with other European heads of state at a summit meeting in Maastricht, the Netherlands, on March 23-24.

A document published by the West German Iron and Steel Federation showed that steelmakers in other countries had been granted or promised aid totalling 60-billion German marks ($28.3-billion) in the 1975-83 period, or an average of about $47 for each metric ton of crude steel production.

The average financial assistance worked down to 55 marks ($26) a ton for the French government, 64 marks ($30) for the Italian, 102 marks ($41) for the Belgian, and 185 marks ($87) for the British."

American Metal Market
March 18, 1981

"The European Commission has set a deadline for the governments of Belgium and Luxembourg to explain their proposed steel industry aid programs. The Commission recently deemed the aid "unjustified" under the Council of Ministers' terms for rejuvenation of steel production in Europe. The two countries now have until May 18 to justify their plan to give state aid to their steel sectors.

In the case of Luxembourg, subsidies of $540 million plus low interest loans until 1984 had been proposed to the Commission. Meanwhile, the Belgians put forward plans to give government loan guarantees totalling $174 million to five producers."

Metals Daily
May 7, 1981

United Kingdom

"So British Steel duly got on Tuesday both its £3.5 billion capital write-off and some £880m new capital to carry it through to March, 1982. That brings the total state financing of British Steel to £2.5 billion since the Tories came to power pledged to cut the public sector."

The Economist
February 21, 1981

Italy

"The Italian Government has come up with an amended plan for the rescue of the debt-ridden state steel industry, which it hopes will survive feuding at home, and satisfy the demands of Brussels and Italy's EEC partners.

The new scheme, settled at a meeting of Ministers concerned, and Dr. Carlo Ciampi, governor of the Bank of Italy, is likely to go before a cabinet meeting in two weeks. In the interval talks with increasingly militant

unions and EEC representatives will, it is hoped, smooth over outstanding difficulties.

According to Sig Gianni de Michelis, the Minister of State responsible for Italsider, the steel operating arm of the IRI state conglomerate which is the company in the worst straits, the total cash injection into the sector should stay at around L6,000 bn ($5.87bn)."

Financial Times
March 13, 1981

Luxembourg

"The Tripartite Committee on Steel comprised of Arbed SA, the Luxembourg government and labor representatives has approved investment aid proposals for 7.5-billion Luxembourg francs ($235-million) to the financially troubled company.

But they also said that 1980 losses increased four-fold over last year's, and financial charges have become a major burden to the Luxembourg steelmaker.

Luxembourg government approval of the aid is now almost a certainty, an Arbed spokesman said, and it will clear the way for implementation of a scaled-down 22.6-billion franc ($706-million) 1980-84 investment plan."

American Metal Market
December 31, 1980

Belgium

"The Belgian government this week set up a committee of steel industry officials and analysts to begin negotiations with the European Economic Community (EEC) Commission over objections by the commission to supplementary emergency aid to the Belgian steel industry.

According to a spokesman for the Belgian Ministry of the Economy, a letter sent by the commission Dec. 19 to the Belgian government called for explanations of the raising of foreign loans of 1.5 billion Belgian francs ($47.8-million) in aid for the Charleroi Triangle Group and gave Belgium until Jan. 18 to reply. Government-backed loans raised last month, a Belgian steel industry source explained, were obtained to help overcome an acute cash shortage for salaries and other immediate expenses by the Charleroi group.

The decision to begin negotiations followed talks last Monday between Belgian Economics Minister Willy Claes and Viscount Etienne Davignon, EEC commissioner for industrial affairs. The economics ministry spokesman said that no objections were raised to an earlier approved 1981-84 investment plan of 45 billion francs ($1.4-billion) for industry restructuring, of which about half will be provided by the government and half by financial holding groups for the steel companies."

American Metal Market
January 8, 1981

France

"Agreement has been reached on one of the two stages of the French government's plan for restructuring the special steel industry and an accord on the second stage is likely before the presidential elections in late April, officials at the Industry Ministry said.

In all, the restructuring program is expected to cost the equivalent of $325 million. The French taxpayer will pick up half the tab in the form of state aid to help four steel companies trim excess production capacity and improve productivity."

Wall Street Journal
March 18, 1981

W. Germany

"The generous state aid promised to Hoesch to build a new steel plant in Dortmund has irritated its hard-pressed competitors. Hoesch is to invest some DM550m ($314m) in the project in the next four years and it is getting more than $137m of this in cheap loans — half each from the West German government and the government of North Rhine-Westphalia.

The terms are indeed favourable. The interest rate on the loans is a mere 4%, instead of the customary 8%. And after three years without having to make repayments Hoesch has been given 15 years in which to pay the money back — at its own pace."

The Economist
March 1, 1980

"Germany's steel industry, a longtime bastion of private enterprise and free market principles, has made a U-turn. In a series of moves unthinkable a few years ago, it has asked the government for domestic subsidies and compensating levies on cheap imports."

"At the heart of the problem, in the Germans' view, are the huge state subsidies paid to their main rivals in the EC. There has been a continuing crisis in Europe's steel industry for six years now, and total subsidies come to some $14 billion. The small sums available to German producers are peanuts compared with those received by *British Steel Corp.*, for example, or Italy's *Finsider.*

And if Thyssen is hurting, things must be bad. Spethmann reckons that every ton of steel imported into Germany has a $47 subsidy. The EC provides 25% of the steel consumed in Germany, and another 11% comes from elsewhere. Such a subsidy cannot possibly be offset by higher German productivity.

Companies fear a price war, with imports taking an ever-increasing market share. Subsidized producers will survive; their competitors, though fundamentally more efficient, may not."

Financial Times of London
World Business Weekly
May 11, 1981

Spain

"Spain's steelosaurus has lumbered on through the European steel slump thanks to a diet of ad-hoc government handouts. Little has been heard of a national steel programme unveiled early in 1979. Now, the integrated steel industry (iron ore to steel products) is allegedly to be overhauled, starting with its chaotic finances and moving on to the commercial and technical sides. If so, high time.

Largely state-owned, Spain's big three in bulk steel have been staggering under ever-increasing debts while investment plunged and productivity stagnated. The euphoria of the early 1970s that envisaged consumption of steel reaching 17m tonnes this year has long dissipated. The actual figure is not likely to be much more than 1979's 8m tonnes. Initially, the government will inject $850m to clean up the industry's balance sheets. Special terms will lighten the burden of large interest payments. The danger is that ad hoc aid will just be replaced by the continuous subsidy of soft loans. Thus Altos Hornos de Vizcaya, owned by three banks and a large number of small shareholders, has converted its debt into a soft loan at an interest rate of 1.5%."

The Economist
April 4, 1981

Canada

"A report calling for a $350-million infusion to nudge Sydney Steel Corp. (Sysco) along a 10-year road to recovery has been released by Nova Scotia Premier John Buchanan, who said federal-provincial negotiations for the money are just starting.

With the release of the business plan, Buchanan said Ottawa would release the initial $7.5-million rehabilitation grant. The previous federal government of Joe Clark had promised the grant, but the present liberal government had held back until it saw the plan.

The business plan says the ailing, turn-of-the-century steel mill needs $350-million over 10 years for modernization, and then a further $175-million if a decision is made to introduce an oxygen steelmaking process.

A spokesman in Ottawa said it is expected that most of the money would come through normal federal-provincial financing agreements, such as those worked out with the department of regional economic expansion."

American Metal Market
November 20, 1980

Mexico

"When the first slab of steel rolled out at Mexico's huge new mill here (Las Truchas) four years ago, President Luis Echeverria and other government dignitaries at the ribbon-cutting ceremonies were ecstatic.

The government's decades-old dream of

building a "pacific Pittsburgh" here in a west-coast jungle was finally coming true. President Echeverria saw an era of self-sufficiency in steel.

Today, as the government prepares to sink billions more into Las Truchas and other steel-expansion projects, a basic question is being raised: Can Mexico really achieve its planned threefold increase in steel output over the next decade? Plagued by poor planning, low productivity, labor strife, management corruption and myriad other problems, the struggling state-dominated steel industry clearly faces an enormous challenge."

"So the government moves ahead with plans to invest more than $17.2 billion over the next decade to raise state steel production to 20.3 million metric tons annually, up from 4.5 million now. The Las Truchas plant alone is scheduled to produce 10 million tons a year in 1990, up from less than one million today, making it the largest steel mill in Latin America."

Wall Street Journal
January 27, 1981

Appendix C

American Steel Industry
Selected Production and Financial Statistics

Table C-1

Production and Shipments
(Million Net Tons)

Year	Raw Steel Production	Raw Steel Percent of Capability*	Steel Shipments
1970	131.5	N.A.	90.8
1971	120.4	N.A.	87.0
1972	133.2	N.A.	91.8
1973	150.8	N.A.	111.4
1974	145.7	N.A.	109.5
1975	116.6	76.2%	80.0
1976	128.0	80.9	89.4
1977	125.3	78.4	91.1
1978	137.0	86.8	97.9
1979	136.3	87.8	100.3
1980	111.8	72.8	83.9

*Raw steel output as a percent of tonnage capability to produce raw steel for a sustained full order book. Not published prior to 1975.

Source: American Iron and Steel Institute.

Table C-2

Imports & Apparent Steel Supply

(Million Net Tons)

Year	Total Imports	Apparent Steel Supply*	Imports as % of Apparent Steel Supply
1970	13.4	97.1	13.8%
1971	18.3	102.5	17.9
1972	17.7	106.6	16.6
1973	15.1	122.5	12.4
1974	16.0	119.6	13.4
1975	12.0	89.0	13.5
1976	14.3	101.1	14.1
1977	19.3	108.5	17.8
1978	21.1	116.6	18.1
1979	17.5	115.0	15.2
1980	15.5	95.2	16.3

*Shipments from domestic mills plus imports minus exports.

Source: American Iron and Steel Institute.

Table C-3

Cash Flow Data
(Millions of Dollars)

	Profits After taxes	Depreciation, Depletion, etc.*	Gross Cash Flow	Cash Dividends	Net Internal Sources	Capital Expenditures
1964	$ 992	$1,046	$2,038	$462	$1,576	$1,600
1965	1,069	1,117	2,186	468	1,718	1,823
1966	1,075	1,199	2,274	483	1,791	1,953
1967	830	1,444	2,274	481	1,793	2,146
1968	992	1,316	2,308	452	1,856	2,307
1969	879	1,173	2,052	489	1,563	2,047
1970	532	1,128	1,660	488	1,172	1,736
1971	563	1,123	1,686	390	1,296	1,425
1972	775	1,216	1,991	402	1,589	1,174
1973	1,272	1,329	2,601	443	2,158	1,400
1974	2,475	1,553	4,028	674	3,354	2,115
1975	1,595	1,591	3,186	658	2,528	3,179
1976	1,337	1,614	2,951	637	2,314	3,253
1977	22	1,888	1,910	555	1,355	2,850
1978	1,277	1,968	3,245	536	2,709	2,595
1979	1,154	2,453	3,607	593	3,014	3,312
1980	1,632	2,235	3,867	602	3,265	3,319

*Includes changes in reserves.

Source: American Iron and Steel Institute (for those companies reporting financial information).

Table C-3

Cash Flow Data
(Millions of Dollars)

	Excess (+) or Deficit (—) Net Internal Sources over Capital Expend.	Change In Long-Term Debt	Capital Expenditures As a Percent of Net Internal Sources
1964	—$ 24	+$ 179	101.5%
1965	— 105	+ 245	106.1
1966	— 162	+ 659	109.0
1967	— 353	+ 423	119.7
1968	— 451	+ 396	124.3
1969	— 484	+ 7	131.0
1970	— 564	+ 526	148.1
1971	— 129	+ 10	110.0
1972	+ 415	+ 85	73.9
1973	+ 758	— 267	64.9
1974	+ 1,239	— 312	63.1
1975	— 651	— 1,054	125.8
1976	— 939	+ 1,262	140.6
1977	— 1,495	+ 992	210.3
1978	+ 114	+ 804	95.8
1979	— 298	— 46	109.9
1980	— 54	+ 659	101.7

Table C-4

Corporate Profit Rates: Steel Versus All Manufacturing Average

	Steel Company Profits After Taxes (millions of $)	Steel Company Profits After Taxes As a Percent of Revenues	Profits After Taxes As A Percent of Stockholders' Equity*	
			Steel Companies	All Manufacturing
1964	992	6.1%	9.0%	12.6%
1965	1,069	5.9	9.4	13.9
1966	1,075	5.9	8.9	14.2
1967	830	4.9	6.9	12.6
1968	992	5.3	8.2	13.3
1969	879	4.6	7.0	12.4
1970	532	2.8	4.1	10.1
1971	563	2.8	4.3	10.8
1972	775	3.4	5.8	12.1
1973	1,272	4.4	9.3	14.9
1974	2,475	6.5	17.1	15.2
1975	1,595	4.7	9.8	12.6
1976	1,337	3.7	7.8	15.0
1977	22	0.1	0.1	14.9
1978	1,277	2.6	7.3	15.9
1979	1,154	2.1	6.7	18.4
1980	1,632	3.0	9.0	16.6

*Based on Equity at beginning of year.

Sources: American Iron and Steel Institute, Citibank N.A.

Table C-5

Estimated Capital Expenditures for Environmental Control Facilities*

(Millions of Dollars)

Year Facilities Began Operations	For Water Improvement	For Air Improvement	Total
1951-1965	$ 209.6	$ 238.8	$ 448.4
1966	18.8	37.7	56.5
1967	54.7	39.4	94.1
1968	61.5	40.2	101.7
1969	71.0	67.1	138.1
1970	110.0	72.6	182.6
1971	73.4	88.2	161.6
1972	57.0	144.8	201.8
1973	34.7	65.4	100.1
1974	79.4	119.4	198.8
1975	131.8	321.3	453.1
1976	158.7	330.5	489.2
1977	205.7	329.1	534.8
1978	180.8	277.2	458.0
1979	201.2	449.6	650.8
1980	168.2	342.3	510.5
Total 1951 — 1980**	1,879.6	3,015.0	4,894.6
Authorized for 1981 and Later	219.7	641.1	860.8

*Between 1951 and 1974 capital expenditures were for facilities placed in operation. Effective with 1975, the data represents actual capital expenditures made during the year.

**Includes capital expenditures in years prior to 1975 for facilities not placed in operation as of January 1, 1975: $63.1 million for water, $51.4 million for air, $114.5 million in total.

Source: American Iron and Steel Institute.